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REMARKS

The Office Action dated September 7, 2005 has been received and carefully considered. In this response, claims 4, 20 and 36 have been amended, claims 10 and 11 have been canceled without prejudice and new claims 55 and 56 have been added. The amendments to claims 4 and 36 correct various informalities and do not narrow the scope of the claims. Support for the amendments and the addition of the new claims may be found in the specification and drawings as originally filed. Reconsideration of the outstanding rejections in the present application is respectfully requested based on the following remarks.

Allowability of Claim 50

The Applicants note with appreciation the indication at page 19 of the Office Action that claim 50 would be allowable if rewritten in independent form. The Applicants have elected to forgo rewriting claim 50 as suggested in view of the following remarks.

Anticipation Rejection of Claims 1-8, 13, 14, 19, 20, 36 and 37

At page 2 of the Office Action, claims 1-8, 13, 14, 19, 20, 36 and 37 were rejected under 35 U.S.C. Section 102(b) as being anticipated by Challen (U.S. Patent No. 4,521,918). This rejection is respectfully traversed for at least the reason that Challen fails to disclose the particular combinations of features recited by these claims.

To illustrate, claim 1, from which claims 2-8, 13, 14, 19 and 20 depend, recites the features of providing an oscillator signal to drive a clock line and providing a locked signal from an output of a phase locked loop to the clock line. Claim 36 recites similar features vis-à-vis a clock line. Challen, however, fails to disclose clock signaling or a clock line in any manner, much less that an oscillator signal is used to drive a clock line or that a locked signal from an output of a phased locked loop is provided to a clock line as provided by claims 1 and 36. Rather, Challen discloses that its system is used as a frequency synthesizer for use in radio frequency (RF) transmissions, such as cellular telephone transmissions. *See, e.g., Challen, Abstract; see also Challen, Fig. 2.* One of ordinary skill in the art will appreciate that the signal line contemplated by Challen is not the same as, or even analogous to, a clock line as provided

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by claims 1 and 36. Accordingly, Challen fails to disclose or even suggest each and every feature of claims 1 and 36, as well as the additional features of claims 2-8, 13, 14, 19, 20 and 37 at least by virtue of their dependency from one of claims 1 or 36. Moreover, these claims recite additional, non-obvious features.

To illustrate, claim 4 recites the features of wherein the oscillator signal is generated through a crystal oscillator and claim 5 recites the features that the oscillator signal is generated through an RC circuit. The Office Action asserts that the passage of Challen at col. 1, lines 9-16 disclose these features. *Office Action*, p. 3. However, this cited passage of Challen fails to disclose the generation of an oscillator signal through an RC circuit in any manner and therefore fails to disclose the additional features of claim 5. With respect to the features of claim 4, the disclosed system of Challen is a high frequency synthesizer and the cited passage of Challen discloses that “[h]igh frequency synthesizers [such as the one disclosed by Challen] are now commonly utilized *substitutes for the crystal controlled transmitter oscillators and receiver local oscillators* because they are able to provide a frequency stable signal at any one of a plurality of frequencies without the need for a crystal for each frequency.” *Challen*, col. 1, lines 9-16 (emphasis added). Thus, Challen explicitly teaches that its frequency synthesizer is a substitute for (and therefore does not utilize) crystal controlled transmitter oscillators.

As another example, claim 8 recites the features of wherein disabling the phase locked loop, when in the first power mode, further includes providing *reduced* power, in comparison to an available power, to the device. The Office appears to erroneously interpret the provision of *reduced* power to include the provision of *no* power. However, one of ordinary skill in the art would understand that the provision of reduced power, in comparison to an available power, as provided by claim 8 does not include providing *no* power. Thus, as Challen discloses that power is either supplied to the PLL means 10 or is entirely shut-off, Challen fails to disclose providing *reduced* power, in comparison to an available power, as recited by claim 8.

As another example, claim 20 has been amended to recite the features of wherein providing the oscillator signal to drive a clock line includes coupling a line carrying the oscillator signal to the clock line and wherein providing the locked signal from an output of the phase locked loop to the clock line includes decoupling the line carrying the oscillator signal from the

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clock line. As taught by Challen, the output of the VCO 12 is always coupled to the "output" and the line carrying the output of the VCO 12 is not decoupled at any time.

In view of the foregoing, it is respectfully submitted that the Office Action fails to establish that Challen discloses each and every feature recited by claims 1 and 36, as well as the additional features recited by dependent claims 2-8, 13, 14, 19, 20 and 37. Accordingly, reconsideration and withdrawal of the anticipation rejection of claims 1-8, 13, 14, 19, 20, 36 and 37 is respectfully requested.

Obviousness Rejection of Claims 44, 45, 47, 48 and 52-54

At page 5 of the Office Action, claims 44, 45, 47, 48 and 52-54 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over Mirov (U.S. Patent No. 6,691,215) and further in view of Challen. This rejection is respectfully traversed for at least the reason that there is no motivation to combine the teachings of Mirov and Challen as proposed.

The Office Action proposes the combination of Mirov and Challen to arrive at the particular combinations of features recited by claims 44, 45, 47, 48 and 52-54. The alleged rationale for this proposed combination is that "it would have been obvious . . . to modify the disabling of [the] PLL disclosed by Mirov to include removing power during [a] batter^X save operation . . . as taught by Challen, in order to obtain [a] frequency synthesizer without substantial drift [and which] can be relocked in short [a] short period of time." *Office Action*, p. 6. As a first issue, the system of Challen is an analog system that provides an analog signal for use in an RF or analog cellular system, whereas Mirov is a digital system used to synchronize to a clock signal. Thus, not only are Challen and Mirov non-analogous art, their differing signaling modes prevents the efficient integration of one system into the other without considerable design effort. As a second issue, there is no motivation in either Mirov or Challen for their combination. Contrary to the assertions of the Office Action, Mirov provides no suggestion that it seeks to "a frequency synthesizer without substantial drift" as the system of Mirov is described in the context of a memory system (see Mirov, Abstract) and Mirov fails to suggest its use in an RF system or other analog system in which a frequency synthesizer would be useful. Likewise, Challen provides no suggestion that it seeks to synchronize clock signals and therefore fails to

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suggest its use in a memory system or other digital system in which clock synchronization would be useful.

Accordingly, as one of ordinary skill in the art would have great difficulty integrating the analog system of Challen with the digital system of Mirov, and as neither Challen nor Mirov provide any motivation for such integration, one of ordinary skill in the art would find no motivation to combine the teachings of Mirov and Challen as proposed by the Office Action. The Office Action therefore fails to establish a *prima facie* case of obviousness of claims 44, 45, 47, 48 and 52-54. Moreover, these claims recite non-obvious features.

To illustrate, claim 48 recites the features of wherein the means for determining a power mode of the system includes means for determining a number of pending instructions. The Office Action asserts that the passages at col. 4, lines 4 and 31-50, col. 6, lines 49-67, col. 7, lines 1-24, and col. 17, lines 26-41 disclose the claimed features. However, as acknowledged at page 10 of the Office Action, neither the cited passages nor any other passages of Mirov disclose or even suggest a means for determining a number of pending instructions, much less that these means are included in the means for determining a power mode of the system as recited by claim 48.

In view of the foregoing, it is respectfully submitted that the obviousness rejection of claims 44, 45, 47, 48 and 52-54 is improper at this time. Reconsideration and withdrawal of this obviousness rejection therefore is respectfully requested.

Obviousness Rejections of Claims 9-12, 14-18, 21-23, 38-43, 46, 48, 49 and 51

At page 7 of the Office Action, claim 46 was rejected under 35 U.S.C. Section 103(a) as being unpatentable over Mirov and Challen and further in view of Zhang (U.S. Patent No 6,687,322). At page 9 of the Office Action, claims 48 and 49 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over Mirov and Challen and further in view of Durham (U.S. Patent No 6,785,829). At page 11 of the Office Action, claim 51 was rejected under 35 U.S.C. Section 103(a) as being unpatentable over Mirov and Challen and further in view of Anwyl (U.S. Patent No 5,576,738). At page 13 of the Office Action, claim 14 was rejected under 35 U.S.C. Section 103(a) as being unpatentable over Challen and claims 21, 22, 41 and 43

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were rejected under 35 U.S.C. Section 103(a) as being unpatentable over Challen and further in view of Durham. At page 15 of the Office Action, claims 23 and 42 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over Challen and further in view of Anwyl.¹ At page 16 of the Office Action, claims 9-12, 15-18 and 38-40 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over Challen and further in view of Zhang. These rejections are respectfully traversed.

Claims 9, 12, 14-18 and 21-23 depend from claim 1 and claims 38-43 depend from claim 36. As discussed above, Challen fails to disclose or even suggest each and every feature recited by claims 1 and 36. The Office Action does not assert that Mirov, Durham, Anwyl or Zhang disclose or suggest the features of claims 1 and 36 lacking in Challen, nor in fact are these features disclosed by the remaining cited references. Accordingly, the proposed combinations of Challen, Durham, Anwyl and Zhang fail to disclose or suggest the features of claims 9, 12, 14-18, 21-23 and 38-43 at least by virtue of their dependency from one of claims 1 or 36. Moreover, these claims recite additional non-obvious features.

Claims 46, 48, 49 and 51 depend from claim 44. As discussed above with respect to claim 44, there is no motivation to combine the teachings of Challen and Mirov as proposed by the Office Action. Moreover, the teachings of Durham, Anwyl and Zhang fail to provide the necessary motivation. Accordingly, the Office Action fails to establish a *prima facie* case of obviousness for claims 46, 48, 49 and 51 at least by virtue of their dependency from claim 44. Moreover, these claims recite additional non-obvious features.

In view of the foregoing, it is respectfully submitted that the obviousness rejections of claims 9, 12, 14-18, 21-23, 38-43, 46, 48, 49 and 51 are improper at this time. Reconsideration and withdrawal of these obviousness rejections therefore is respectfully requested.

Addition of New Claims 55 and 56

New claims 55 and 56 have been added. New claim 55 depends from claim 1 and recites the additional features of providing the oscillator signal to drive the clock line includes providing the oscillator signal to the clock line via a first input of a multiplexer and providing the locked

¹ The Office Action mistakenly identifies Challen as "Challenge" at pages 15 and 16 of the Office Action.

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signal from the output of the phase locked loop to the clock line includes providing the locked signal to the clock line via a second input of the multiplexer. Claim 56 depends from claim 36 and recites similar features. It is respectfully submitted that the cited references fail to disclose or suggest, individually or in combination, these recited features.

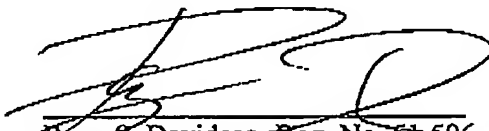
Conclusion

The Applicants respectfully submit that the present application is in condition for allowance, and an early indication of the same is courteously solicited. The Examiner is respectfully requested to contact the undersigned by telephone at the below listed telephone number in order to expedite resolution of any issues and to expedite passage of the present application to issue, if any comments, questions, or suggestions arise in connection with the present application.

The Commissioner is hereby authorized to charge any fees that may be required, or credit any overpayment, to Deposit Account Number 50-0441.

Respectfully submitted,

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Date


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